

Board Administration and Regulatory Coordination Unit

Division 3. Air Resources Board

Chapter 5. Standards for Motor Vehicle Fuels

Article 3. Specifications for Alternative Motor Vehicle Fuels

§ 2292.1. Fuels Specifications for M100 Fuel Methanol.

The following standards apply to M-100 fuel methanol
(The identified test methods are incorporated herein by reference):

Specifications for M-100 Fuel Methanol

<i>Specification</i>	<i>Value</i>	<i>Test Method</i>
Methanol	96 vol. % (min.)	As determined by the distillation range below
Distillation	4.0°C (range)	ASTM D 1078-86. At 95% by volume distilled. Must include 64.6 + 0.1°C
Other alcohols and ethers	2 mass % (max.)	ASTM D 4815-89
Hydrocarbons, gasoline or diesel fuel derived	2 mass % (max.)	ASTM D 4815-89, and then subtract concentration of alcohols, ethers and water from 100 to obtain percent hydrocarbons
Specific gravity	0.792 + 0.002 @ 20°C	ASTM D 891-89
Acidity as acetic acid	0.01 mass % (max.)	ASTM D 1613-85
Total chlorine as chloride	0.0002 mass % (max.)	ASTM D 2988-86
Lead	2 mg/l (max.) ^a	ASTM D 3229-88
Phosphorus	0.2 mg/l (max.) ^b	ASTM D 3231-89
Sulphur	0.002 mass % (max.)	ASTM D 2622-87
Gum, heptane washed	5 mg/l (max.)	ASTM D 381-86
Total particulates	5 mg/l (max.)	ASTM D 2276-89, modified to replace cellulose acetate filter with a 0.8 micron pore size membrane filter
Water	0.3 mass % (max.)	ASTM E 203-75
Appearance	Free of turbidity, suspended matter and sediment	Visually determined at 25°C by proc. A of ASTM D 4176-86
Bitterant	^c	
Odorant	^d	

^a No added lead.

^b No added phosphorous.

^c The M-100 fuel methanol at ambient conditions must have a distinctive and noxious taste, for purposes of preventing purposeful or inadvertent human consumption. Applicable 1/1/95.

^d The M-100 fuel methanol upon vaporization at ambient conditions must have a distinctive odor potent enough for its presence to be detected down to a concentration in air of not over 1/5 (one-fifth) of the lower limit of flammability. Applicable 1/1/95.

NOTE: Authority cited: Sections 39600, 39601, 43013, 43018, and 43101, *Health and Safety Code*; and *Western Oil and Gas Ass'n. v. Orange County Air Pollution Control District*, 14 Cal. 3d 411, 121 Cal. Rptr. 249 (1975). Reference: Sections 39000, 39001, 39002, 39003, 39010, 39500, 40000, 43000, 43016, 43018 and 43101, *Health and Safety Code*; and *Western Oil and Gas Ass'n. v. Orange County Air Pollution Control District*, 14 Cal. 3d 411, 121 Cal. Rptr. 249 (1975).

REFERENCE